

REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested.

Claims 21-24 and 27-39 are pending in this application. Claim 29 is added by the present response. Claims 21-24 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. patent 6,492,633 to Nakazawa et al. (herein "Nakazawa") in view of U.S. patent 4,918,262 to Flowers et al. (herein "Flowers"). Claims 27-38 were rejected under 35 U.S.C. §103(a) as unpatentable over Nakazawa and Flowers as applied to claims 21-24, and further in view of JP 09319501 to Fumihiko et al. (herein "Fumihiko").

Addressing the above-noted rejections, those rejections are traversed by the present response.

Applicants respectfully submit the outstanding rejection has not properly consider each of the claim limitations, particularly with respect to Nakazawa disclosing the "second threshold value" and how the newly cited art to Flowers is applied.

However, the claims are directed to a different type of operation than that in Flowers.

First, the basis for the outstanding rejection relies upon Nakazawa to disclose the claimed features directed to changing the "second threshold value". However, applicants respectfully submit Nakazawa does not disclose or suggest such features.

More particularly, independent claim 21 recites a feature of "said second threshold value being changed in accordance with the *distance between the pointer and the optical unit*" (emphasis added). To meet that claim limitation the outstanding Office Action cites Nakazawa at column 9, lines 51-53 and states "in the reference decreases with elapse time (scanning angle becomes smaller) from the start of operation is equivalent to the distance".¹ However, in that respect applicants respectfully submit such teachings in Nakazawa are not related to the claimed features.

¹ Office Action of January 14, 2005, page 3, first paragraph.

According to the above-noted claim features, a value of a second threshold is changed as the distance between a pointer and an optical unit changes. For example as discussed in the present specification, a value of a second threshold can be set to decrease as the distance between an optical unit 5 and a designating device 4 increases, and as a specific non-limiting concrete example, a light receiving level of a light receiving element 13 can be 10 (black) when the distance between the optical unit 5 and the designating device is 100 mm and 200 when the distance is 200 mm.²

Thus, in the noted claimed features the value of the second threshold changes based on a physical distance between a pointer and optical unit.

That feature is believed to clearly distinguish over Nakazawa. At column 9, lines 51-53 Nakazawa discloses that the threshold value Ref can decrease as a scanning angle becomes smaller, i.e., as the elapsed time from the start of an optical scanning becomes longer. However, that feature in Nakazawa is not related to the distance between the pointer and the optical unit. The claimed features are not directed to an elapse of a time from a start of an optical scanning, but instead to a physical distance between a pointer and an optical unit. The above-noted teachings in Nakazawa are not believed to correspond to the claimed features.

In that respect applicants also note the present response sets forth new dependent claim 39 for examination, which even further defines that “said second threshold is decreased as the distance between the pointer and optical unit is increased.” That feature is fully supported by the original specification as discussed above and is believed to even further distinguish over Nakazawa.

In such ways, independent claim 21, and the claims dependent therefrom, are believed to distinguish over the applied art.

² See for example the present specification at page 19, line 12 *et seq.*

Moreover, applicants respectfully submit Flowers does not even overcome the recognized deficiencies in Nakazawa, and that even combining the teachings of Nakazawa in view of Flowers does not fully meet the claim limitations.

The outstanding Office Action also recognizes deficiencies in Nakazawa and cites the teachings in Flowers to overcome the recognized deficiencies in Nakazawa. Specifically, the outstanding Office Action states:

Nakazawa et al. does not show optical unit recognize insertion of the pointer when detection signal exceeds a first predetermined threshold value, allowing a coordinate calculation operation.

Flowers et al. teaches optical unit recognize insertion of the pointer when detection signal exceeds a first predetermined threshold value (See Fig. 5, item 1, Col. 8, Lines 7-16), allowing a coordinate calculation operation (See Fig. 5, item A, Col. 8, Lines 16-19 and Fig. 2, item 23).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Flowers et al. into Nakazawa et al. system in order to utilize plural thresholds for tracking (see Col. 2, Lines 55-58 in the Flowers et al. reference).³

Thereby, the outstanding Office Action cites Flowers to teach an optical unit recognizing insertion of a pointer when a detection signal exceeds a first predetermined threshold.

In that respect, applicants note Flowers is directed to a touch sensing display apparatus that can correctly isolate touch forces imposed on a screen.⁴ At the noted portion in Flowers at column 8, lines 7-19 Flowers discloses comparing a touch force on a screen with a static threshold level, and Flowers specifically discloses being able to set a threshold "to a force level which is less than that of the normally provided signal from the lightest human touch which is to be sensed".⁵

Thus, the Threshold level 1 in Flowers is not a level to detect insertion of a pointer. Flowers specifically notes such a level is below that for which a lightest human touch is to be

³ Office Action of January 14, 2005, page 3, last three paragraphs.

⁴ See for examples Flowers at column 2, lines 29-35.

⁵ Flowers at column 8, lines 14-16.

sensed. Flowers also indicates such a sensing is utilized to acquire offset signal values for use in microprocessor 23.⁶ Thus, Flowers does not disclose utilizing the Threshold 1 to determine insertion of a pointer.

Moreover, Flowers does not disclose or suggest, nor does Nakazawa disclose or suggest, in combination sensing both first and second thresholds. It is only the applicants of the present invention who recognized the benefits achieved in the claimed invention by utilizing both first and second threshold values. Neither Nakazawa nor Flowers teaches or suggests such features.

Moreover, even if the teachings of Flowers were combined with the teachings of Nakazawa, such a combination would not realize the claimed invention.

Both Flowers and Nakazawa disclose utilizing thresholds to detect insertion of a pointer. Neither teaches or suggests utilizing first and second threshold values.

If the teachings in Flowers were combined with those in Nakazawa, that would at most result in modifying Nakazawa to utilize a Threshold 1 as in Flowers to determine an offset signal value. Such a combination would not result in utilizing a first threshold value to detect insertion of a pointer and utilizing a second threshold value to calculate coordinates. It is only the applicants of the present invention that recognized utilizing both first and second threshold values in such ways.

In such ways, the claims as currently written are believed to clearly distinguish over Nakazawa in view of Flowers.

Moreover, none of the further teachings in Fumihiko are believed to overcome the above-noted deficiencies of Nakazawa in view of Flowers.

In view of these foregoing comments, applicant respectfully submit the claims as currently written distinguish over the applied art.

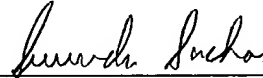
⁶ Flowers at column 8, lines 16-19.

Application No. 09/653,336
Reply to Office Action of January 14, 2005.

As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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